

A 4x4 MiMo LTE and 4x4 or 6x6 MiMo WIFI multi purpose 'Disk' antenna for GNSS, 2G/3G/4G/5G and WIFI 6E 2.4/4.9-7.2 GHz

DESCRIPTION

- In-built 4x4 MiMo LTE antenna (617 - 960 MHz and 1710 - 3800 MHz)
- 4x4 or 6x6 MiMo WiFi 6E 2.4/4.9-7.2 GHz
- GNSS antenna for GPS L1, Glonass, Beidou and Galileo.
- No diplexer needed.
- The ProNexus provides antennas for multiple technologies and multiband routers.
- The ProNexus covers 4G, GNSS inc. 5G cellular bands, WIFI 2.4/5.8 and 7.2 GHz.
- Full hemispherical coverage for the GNSS antennas.
- Built-in high gain, low noise amplifier.
- Right-Hand Circular Polarization.
- 3 - 15 VDC for GNSS supply.
- DC supply via GNSS RF-connector.
- ECE R118.02 approved cable.
- IP69 Ingress protection.

SPECIFICATIONS

Electrical	
Model	ProNexus
Frequency	4G/5G 4x4 MiMo: 617 - 960 MHz, 1710 - 3800 MHz WIFI 4x4 or 6x6 MiMo: 2400 - 2500 MHz, 4900-7200 MHz
Antenna Type	Mobile Disk Style Antenna
Max. Input Power	25 W
Polarisation	Vertical
Impedance	50 Ω
Gain (peak)	4G/5G 3dBi (617 - 960 MHz) 4G/5G 7dBi (1710 - 3800 MHz) WIFI 7 dBi (2.4/5.8/7.2 GHz)
Isolation	>10 dB for 617 - 960MHz >20 dB for 1710 - 3800MHz >15 dB for WiFi
Correlation Coefficient	< 0.2 for 617 - 960 MHz < 0.02 for 1710 - 3800 MHz < 0.02 for WiFi
VSWR	< 2.5:1 for 617 -960 MHz < 2.0:1 for 1710 - 3800 MHz < 2.0:1 for 2400 - 2500 MHz < 2.0:1 for 4900 - 7200 MHz
EMC	Full protection (EN 301 489-1)



Mechanical	
Compliance	ECE R118.02 approved cables
Connection(s)	SMA(m) (all antennas)
Materials	ASA, Zamak 5
Installation Torque	4 +/- 0.5 Nm
Colour	Black (RAL 9005) / Traffic White (RAL 9010)
Dimensions	208 mm x 166 mm x 69 mm/ 8.19 in. x 6.5 in. x 2.7 in. (Approx)
Max. Roof Thickness	3 mm / 0.12 in.
Weight	1.04kg / 2.3 lb
Mounting	18.5 mm / 0.8 in. dia. hole

GNSS Antenna	
Cross Polar Discrimination (GNSS)	> 10 dB (typ.)
Frequency (GNSS)	1559 - 1609 MHz (GPS L1, Glonass, Beidou and Galileo)
Polarisation (GNSS)	RH Circular
Impedance (GNSS)	50 Ω

GNSS LNA	
Gain (GNSS LNA)	25 dB ±3dB
Noise Figure (GNSS LNA)	< 3.5 dB : 1559 - 1610 MHz Typ. 2.0 dB @ 1575 MHz
Attenuation Out Of Band (GNSS LNA)	> 25 dB, 0 - 1525 MHz > 25 dB, 1640 - 3000 MHz
P1dB (GNSS LNA)	> 6 dBm
VSWR (output) (GNSS LNA)	< 2.0:1
Supply Voltage (GNSS LNA)	3-15 VDC
Current Consumption (GNSS LNA)	20 mA

Environmental	
Operating Temperature Range	-50°C to +75°C
Ingress Protection	IP69K

ORDERING

Model	Product No.	Description
ProNexus W-G1-L4-W4	132000282	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 1x GNSS, White Cover
ProNexus W-G1-L4-W6	132000283	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 1x GNSS, White Cover
ProNexus W-G2-L4-W4	132000284	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 2x GNSS, White Cover
ProNexus W-G2-L4-W6	132000285	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 2x GNSS, White Cover
ProNexus B-G1-L4-W4	132000286	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 1x GNSS, Black Cover
ProNexus B-G1-L4-W6	132000287	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 1x GNSS, Black Cover
ProNexus B-G2-L4-W4	132000288	4x4 MiMo 4G/5G, 4x4 MiMo WiFi, 2x GNSS, Black Cover
ProNexus B-G2-L4-W6	132000289	4x4 MiMo 4G/5G, 6x6 MiMo WiFi, 2x GNSS, Black Cover

PRODUCT MATRIX

TYPE	PRODUCT No.	DECRPTION	4G/5G 617 - 960 MHz 1710 - 3800 MHz	WIFI 2390 - 2485 MHz 4900 - 7200 MHz	GNSS 1	GNSS 2
ProNexus W-G1-L4-W4	132000282	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 1 x GNSS, White Cover	◆	◆	◆	
ProNexus W-G1-L4-W6	132000283	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 1 x GNSS, White Cover	◆	◆	◆	
ProNexus W-G2-L4-W4	132000284	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 2 x GNSS, White Cover	◆	◆	◆	◆
ProNexus W-G2-L4-W6	132000285	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 2 x GNSS, White Cover	◆	◆	◆	◆
ProNexus B-G1-L4-W4	132000286	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 1 x GNSS, Black Cover	◆	◆	◆	
ProNexus B-G1-L4-W6	132000287	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 1 x GNSS, Black Cover	◆	◆	◆	
ProNexus B-G2-L4-W4	132000288	4x4 MiMo, 4G/5G, 4x4 MiMo WiFi, 2 x GNSS, Black Cover	◆	◆	◆	◆
ProNexus B-G2-L4-W6	132000289	4x4 MiMo, 4G/5G, 6x6 MiMo WiFi, 2 x GNSS, Black Cover	◆	◆	◆	◆

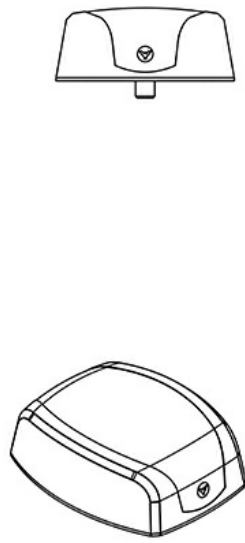
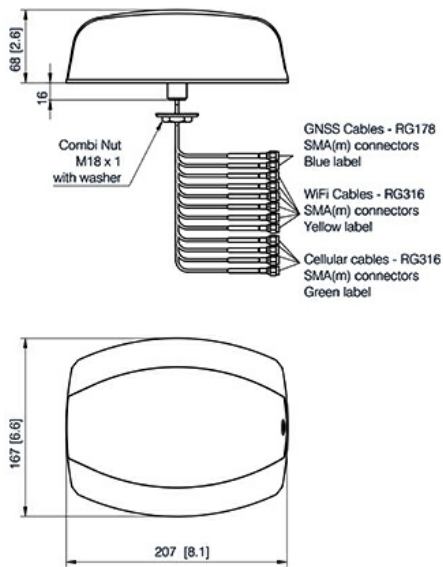
GAIN TABLE

TYPE	FREQUENCY (MHz)	PEAK GAIN (dBi)	AVERAGE GAIN H-PLANE (dBi)	AVERAGE GAIN H-PLANE (dBq)
4G/5G	650	2.0	-1.7	-1.0
	900	3.0	-3.6	-2.0
	1800	4.0	-4.1	-2.0
	2500	6.0	-3.2	-1.0
	3600	6.0	-2.5	0.0
WIFI	2400	7.0	-1.0	-2.0
	5500	7.0	-3.0	-3.0
	7200	9.0	-2.4	-2.0

FAKRA CONNECTORS

	Amphenol RF FAKRA connectors are available for this product in standard key code configurations. Please contact us with configuration details for availability. FAKRA Connectors - RF Connectors Amphenol RF
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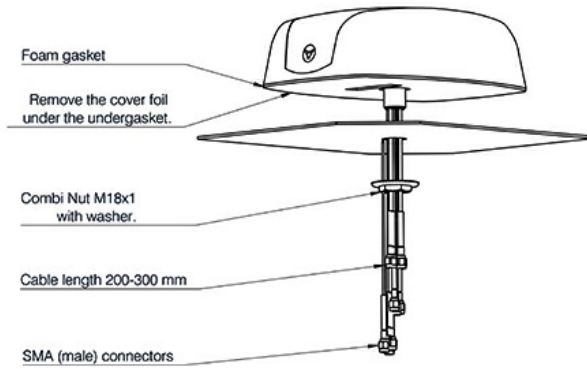
MECHANICAL OUTLINE



Mounting instructions:

- Drill a 18.5-19 mm hole in the car roof.
- Remove the cover foil for the gasket beneath the antenna.
- Pull the cables through the hole.
- Place the antenna in the desired position.
(note: the antenna can not be moved when the glue beneath the gasket touches the car roof)
- Tighten the combi nut with 24 spanner wrench.

Recommended torque: 5 Nm.

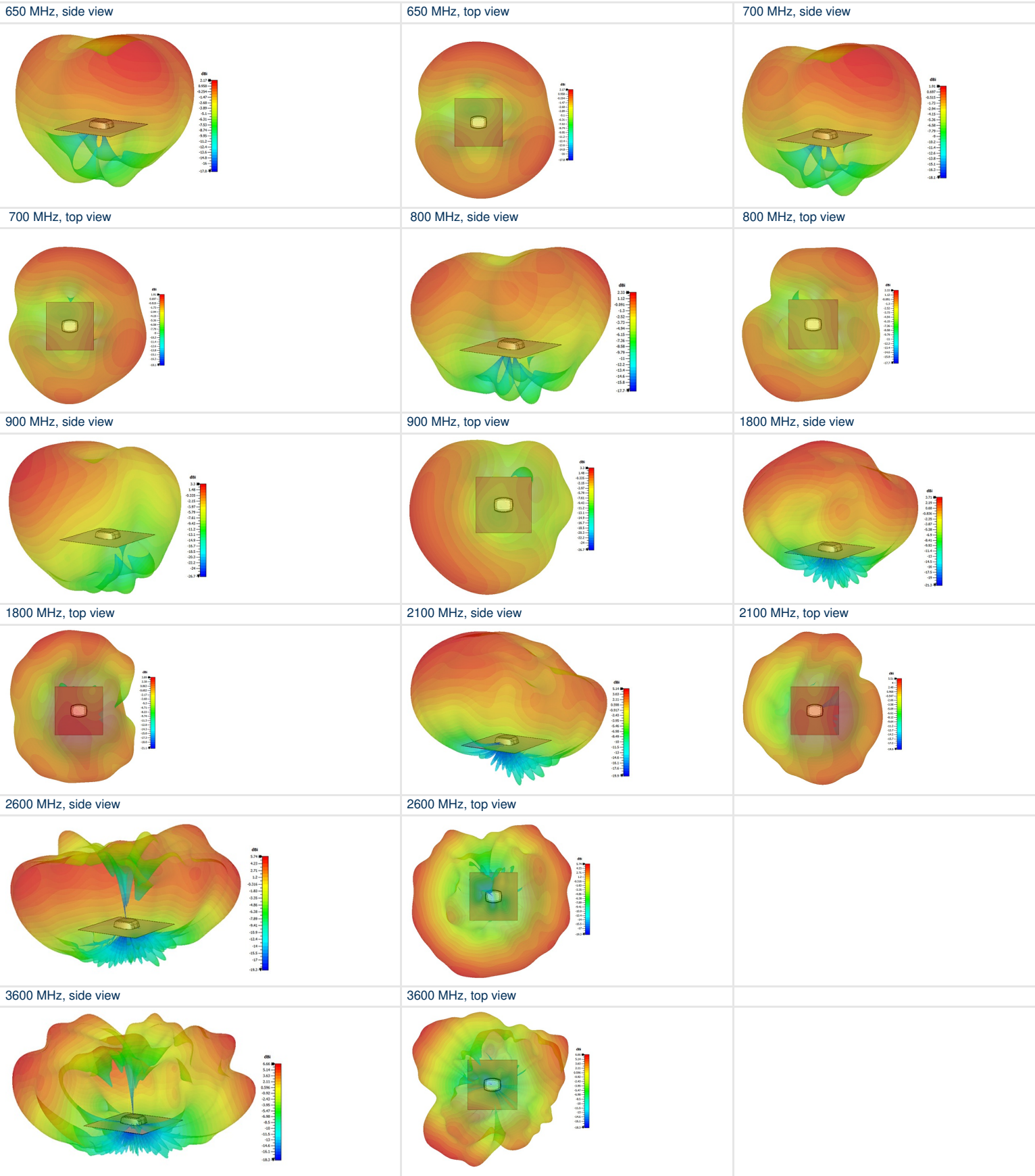


EU AND UK DECLARATION OF CONFORMITY

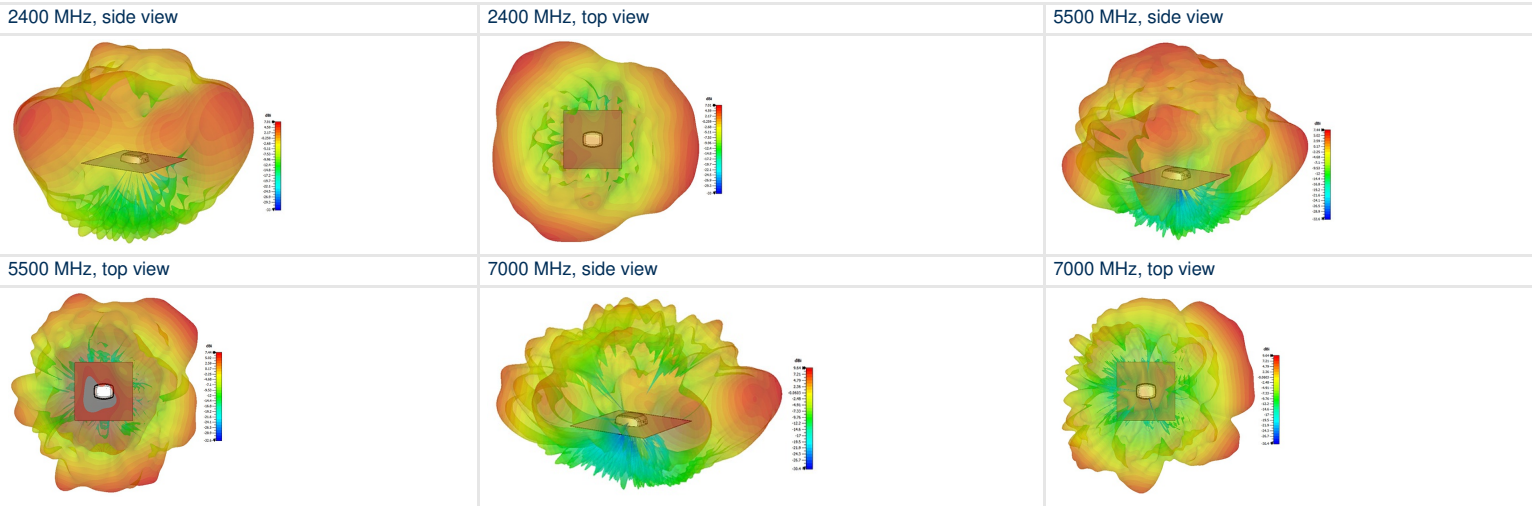
Hereby Amphenol Procom declare that the product type ProNexus is in compliance with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017 (S.I. 2017 No. 1206).
The full text of the Declaration of Conformity is available at:

<https://amphenolprocom.com/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-PRO-NEXUS.pdf>

RADIATION PATTERNS (CELLULAR ANTENNAS)

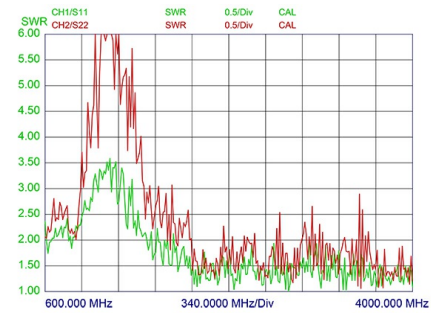


RADIATION PATTERNS (WIFI ANTENNAS)



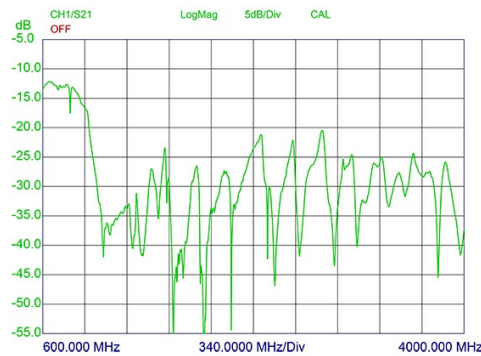
PERFORMANCE CURVES

Typical VSWR 4G/5G Elements*



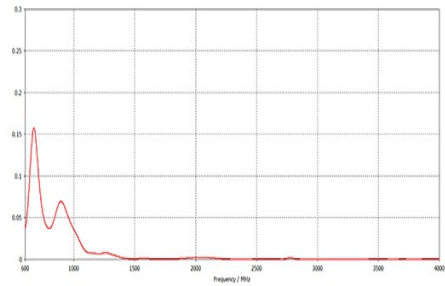
*Red trace measured with 1m (39.4 In.) of RG58 cable. Green trace measured with 3m (118 In.) of RG58 cable on a 600 x 600 mm (23.6 x23.6 In.) groundplane.

Typical Isolation 4G/5G Elements*



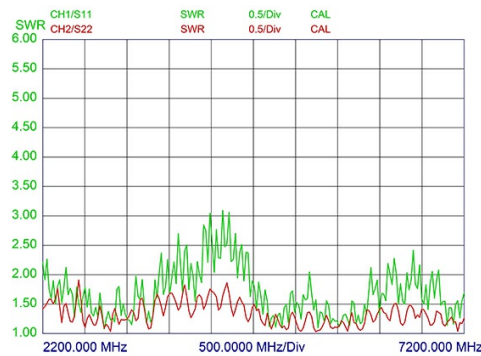
*Measured with no additional cable, on a 600 x 600 mm (23.6 x 23.6 In.) groundplane.

Envelope Correlation Coefficient 4G/5G Elements*



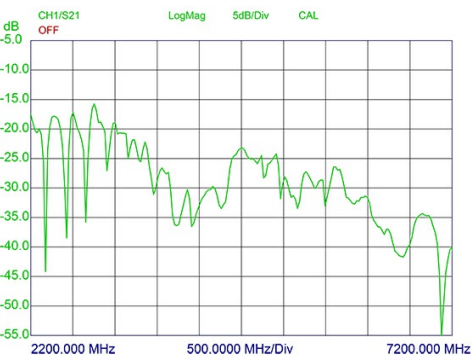
*Simulated in free space with no additional cable.

Typical VSWR WiFi Elements*



*Green trace measured with 1m (39.4 In.) of RG58 cable. Red trace measured with 3m (118 In.) of RG58 cable on a 600 x 600 mm (23.6 x23.6 In.) groundplane.

Typical Isolation WiFi Elements*



*Measured with no additional cable, on a 600 x 600 mm (23.6 x 23.6 In.) groundplane.

